

IN THE CLAIMS:

1. (Currently Amended) A compound composition for increasing the concentration of a parent androgen in a subject in vivo, the parent androgen having a skeletal structure including a 1 position and a 17 position and the parent androgen further having a 17β -hydroxy group comprising a 17β -hydroxy oxygen appended to the 17 position and a 17β -hydroxy hydrogen appended to the 17β -hydroxy oxygen, the compound composition comprising:

a substrate having the skeletal structure of the parent androgen comprising a 1 position and a 17 position corresponding to the 1 and 17 positions respectively of the parent androgen, the substrate comprising a carbon-carbon double bond at the 1 position, the parent androgen being selected from the group consisting of 5α -androst-1-ene- $3\alpha,17\beta$ -diol and 5α -androst-1-ene- $3\beta,17\beta$ -diol; and

a promoiety appended to the 17β -hydroxy oxygen of the substrate as a substitute for the 17β -hydroxy hydrogen of the parent androgen, the promoiety comprising an alkylcarbonate ester.

Claims 2-5 (Canceled).

6. (Currently Amended) A compound composition as set forth in claim 1, wherein the alkylcarbonate ester has an alkyl chain length of less than 12.

7. (Currently Amended) A compound composition as set forth in claim 1, wherein the alkylcarbonate ester is selected from the group consisting of methyl carbonate, ethyl carbonate, propyl carbonate, isopropyl carbonate, butyl carbonate,

isobutyl carbonate, t-butyl carbonate, valeryl carbonate, hexyl carbonate, heptyl carbonate, octyl carbonate, nonyl carbonate, decyl carbonate, dodecyl carbonate, undecyl carbonate, dodecyl carbonate, cyclopentyl methyl carbonate, cyclopentylpropyl carbonate, cyclohexyl methyl carbonate, and cyclohexylpropyl carbonate, and mixtures thereof.

8. (Canceled)

9. (Currently Amended) A ~~compound as set forth in claim 1, composition for increasing the concentration of a parent androgen in a subject in vivo, the parent androgen having a skeletal structure including a 1 position and a 17 position and the parent androgen further having a 17 β -hydroxy group comprising a 17 β -hydroxy oxygen appended to the 17 position and a 17 β -hydroxy hydrogen appended to the 17 β -hydroxy oxygen, the compound comprising:~~

~~a substrate having the skeletal structure of the parent androgen comprising a 1 position and a 17 position corresponding to the 1 and 17 positions respectively of the parent androgen, the substrate comprising a carbon-carbon double bond at the 1 position; and~~

~~a promoiety appended to the 17 β -hydroxy oxygen of the substrate as a substitute for the 17 β -hydroxy hydrogen of the parent androgen, the promoiety comprising an alkylcarbonate ester, wherein the ~~compound~~ ~~composition~~ comprises 17 β -hydroxy-5 α -androst-1-ene-3-one-17 β -ethylcarbonate.~~

Claims 10-17 (Canceled)

18. (Currently Amended) A ~~compound as set forth in claim 1, composition~~ for increasing the concentration of a parent androgen in a subject in vivo, the parent androgen having a skeletal structure including a 1 position and a 17 position and the parent androgen further having a 17 β -hydroxy group comprising a 17 β -hydroxy-oxygen appended to the 17 position and a 17 β -hydroxy hydrogen appended to the 17 β -hydroxy oxygen, the compound comprising:

a substrate having the skeletal structure of the parent androgen comprising a 1 position and a 17 position corresponding to the 1 and 17 positions respectively of the parent androgen, the substrate comprising a carbon-carbon double bond at the 1 position; and

a promoiety appended to the 17 β -hydroxy oxygen of the substrate as a substitute for the 17 β -hydroxy hydrogen of the parent androgen, the promoiety comprising an alkylcarbonate ester, wherein the ~~compound~~ composition comprises 5 α -androst-1-ene-3,17 β -diol 3,17 β -di(alkylcarbonate).

19. (Currently Amended) A ~~compound~~ composition as set forth in claim [[1]] 18, wherein the compound comprises 5 α -androst-1-ene-3,17 β -diol 3,17 β -di(ethylcarbonate).

20. (Currently Amended) A ~~compound~~ composition as set forth in claim 1, further including a carrier.

21. (Currently Amended) A ~~compound~~ composition as set forth in claim [[1]] 20, wherein the carrier comprises a solid carrier.

22. (Currently Amended) A compound composition as set forth in claim [[1]] 20, wherein the carrier comprises a liquid carrier.

23. (Currently Amended) A compound composition as set forth in claim [[1]] 20, wherein the carrier comprises a semi-solid carrier.

Claims 24-56 (Canceled)

57. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises methyl carbonate.

58. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises propyl carbonate.

59. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises isopropyl carbonate.

60. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises butyl carbonate.

61. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises isobutyl carbonate.

62. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises t-butyl carbonate.

63. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises valeryl carbonate.

64. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises hexyl carbonate.

65. (New) A composition as set forth in claim 1, wherein the

alkylcarbonate ester comprises heptyl carbonate.

66. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises octyl carbonate.

67. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises nonyl carbonate.

68. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises decyl carbonate.

69. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises undecyl carbonate.

70. (New) A composition as set forth in claim 1, wherein the alkylcarbonate ester comprises dodecyl carbonate.

71. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester has an alkyl chain length of less than 12.

72. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester is selected from the group consisting of methyl carbonate, ethyl carbonate, propyl carbonate, isopropyl carbonate, butyl carbonate, isobutyl carbonate, t-butyl carbonate, valeryl carbonate, hexyl carbonate, heptyl carbonate, octyl carbonate, nonyl carbonate, decyl carbonate, dodecyl carbonate, undecyl carbonate, dodecyl carbonate, cyclopentyl methyl carbonate, cyclopentylpropyl carbonate, cyclohexyl methyl carbonate, and cyclohexylpropyl carbonate.

73. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises methyl carbonate.

74. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises propyl carbonate.

75. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises isopropyl carbonate.

76. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises butyl carbonate.

77. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises isobutyl carbonate.

78. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises t-butyl carbonate.

79. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises valeryl carbonate.

80. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises hexyl carbonate.

81. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises heptyl carbonate.

82. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises octyl carbonate.

83. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises nonyl carbonate.

84. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises decyl carbonate.

85. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises undecyl carbonate.

86. (New) A composition as set forth in claim 18, wherein the alkylcarbonate ester comprises dodecyl carbonate.
